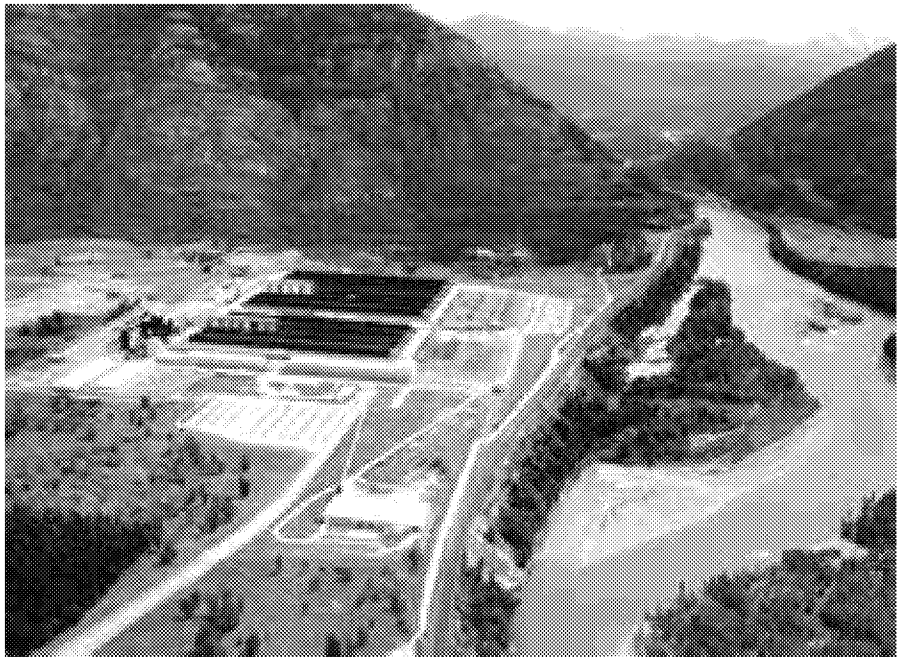
Calbag Resources West Rectifier Concrete Wall Waste Determination
Columbia Falls Aluminum Company
Columbia Falls, Montana 59912

May 2017



Prepared for:

Calbag Resources LLC
1700 Topaz Drive
Missoula, Montana 59808
And
Montana Department of Environmental Quality
Enforcement Division
P.O. Box 200901
Helena, Montana 59620

Prepared by:

Tetra Tech, Inc.
7 West 6th Avenue, Suite 612
Helena, Montana 59601
(406) 442-5588

To:	Cory Mikita and Mark Hall, Montana Department of Environmental Quality
From:	Katy Norris, Tetra Tech, Inc.
CC:	Cliff Boyd, Calbag Resources, and Jim Perris, Calbag Metals
Date:	5/26/2017
Re:	Calbag West Rectifier Concrete Wall Waste Determination Memorandum

The purpose of this memorandum is to report the laboratory results of the 10 concrete grab samples collected from the painted walls of the West Rectifier Building, at the Columbia Falls Aluminum Company (CFAC) facility. Calbag was directed by the Department of Environmental Quality (DEQ) staff, Cory Mikita, to perform sampling and analysis of the wall material to make a waste determination. Details are provided below.

Description of Sampling Locations and Collection

On May 18, 2017, Calbag notified Cory Mikita of DEQ that the West Rectifier wall, located on the backside of the wall for each pot room, will be demolished. However, this wall had not been specifically addressed in the Waste Management Plan (WMP) (Tetra Tech, 2016). The backside of this wall is the end wall for each Pot Room and was set back about 30 feet from the first cathode or hammer head within each pot room (all cathodes have been removed).

On May 19, 2017, Mr. Mikita sent an email to Cliff Boyd of Calbag stating that a hazardous waste determination must be performed on the wall, as it could contain lead-based paints or other hazardous constituents.

On May 22, 2017, Calbag's subcontractor, IRS Environmental, collected 10 grab samples of concrete rubble from the various painted concrete walls and floors in the West Rectifier structure. The West Rectifier concrete structure was 74 feet tall and 400 feet long. The building was constructed of concrete tilt up walls on the South and North side of the structure. Photo 1 shows the building before demolition began. The inside concrete walls were painted as well as shown on Photo 2. Calbag demolished the outer walls first. As shown on Photo 3, Calbag used a pulverizer on the inner wall to grind up concrete that then fell to the ground. IRS collected two 5-point composite samples from the concrete rubble laying on the ground from both the outer wall/building and from the inner wall. The two samples were shipped on ice to Anatek Laboratory in Spokane, Washington.

Photo 1: Outer Concrete Walls on West Rectifier

Photo 2: West Rectifier Building Inner Painted Wall

Photo 3: Pulverizing Concrete for Sample Collection from the West Rectifier Inner Wall

Laboratory Analysis and Results

The two samples were analyzed for RCRA 8 Metals, total fluoride, and total cyanide using analytical methods described in Table 2 of the Quality Assurance Project Plan (QAPP) (Appendix G) of the WMP. The laboratory results are attached to this memo as Appendix A. Using the action levels for RCRA 8 metals, total cyanide, and total fluoride shown in Table 2 of the QAPP, the two sample results were below all of the corresponding action levels. Therefore, all of the West Rectifier building and concrete walls have been identified as non-hazardous.

Waste Disposal

Calbag will complete demolishing the inner wall, remove the steel rebar from the concrete, and re-purpose the rebar. The remaining concrete from all of the West Rectifier Building will be pulverized and stored on site until CFAC makes a waste determination for the pulverized concrete.

Reference

Tetra Tech, Inc. 2016. Final Waste Management Plan and Schedule for Building 1, Columbia Falls Aluminum Company, Columbia Falls, Montana 59912. May, 2016.

APPENDIX A
Laboratory Results

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: IRS ENVIRONMENTAL
Address: PO BOX 15216
SPOKANE, WA 99215
Attn: CARL BURNHAM

Batch #: 170523003
Project Name: CFAC SAMPLING - 17479

Analytical Results Report

Sample Number	170523003-001	**Sampling Date**	5/22/2017	**Date/Time Received**	5/23/2017 9:45 AM
Client Sample ID	17479-WRC-001-G	**Sampling Time**	1:00 PM	**Extraction Date**	
Matrix	Solid	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	ND	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Barium	112	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Cadmium	ND	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Chromium	13.8	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Cyanide	0.0766	mg/Kg	0.01	5/24/2017 12:39:00 PM	TLM	EPA 335.4	
Fluoride	0.022	mg/kg	0.1	5/23/2017 10:51:00 PM	ARY	EPA 300.0	
Lead	23.5	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Mercury-ICPMS	ND	mg/Kg	0.355	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Selenium	ND	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
Silver	ND	mg/Kg	3.55	5/24/2017 3:42:00 PM	KNP	EPA 6020A	
%moisture	1.6	Percent		5/23/2017	KNP	%moisture	

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Client: IRS ENVIRONMENTAL
Address: PO BOX 15216
SPOKANE, WA 99215
Attn: CARL BURNHAM

Batch #: 170523003
Project Name: CFAC SAMPLING - 17479

Analytical Results Report

Sample Number	170523003-002	**Sampling Date**	5/22/2017	**Date/Time Received**	5/23/2017 9:45 AM
Client Sample ID	17479-WRC-002-RW	**Sampling Time**	1:00 PM	**Extraction Date**	
Matrix	Solid	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Arsenic	ND	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Barium	116	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Cadmium	ND	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Chromium	14.7	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Cyanide	0.100	mg/Kg	0.01	5/24/2017 12:50:00 PM	TLM	EPA 335.4	
Fluoride	0.246	mg/kg	0.1	5/23/2017 11:08:00 PM	ARY	EPA 300.0	
Lead	11.2	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Mercury-ICPMS	ND	mg/Kg	0.454	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Selenium	ND	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
Silver	ND	mg/Kg	4.54	5/24/2017 3:45:00 PM	KNP	EPA 6020A	
%moisture	1.4	Percent		5/23/2017	KNP	%moisture	

Authorized Signature Kathleen A. Sattler

Kathleen A. Sattler, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; FL(NELAP):E87893; ID:ID00013; MT:CERT0028; NM: ID00013;NV:ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095; FL(NELAP): E871099

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Login Report

Customer Name: IRS ENVIRONMENTAL
PO BOX 15216
SPOKANE WA 99215

Order ID: 170523003
Order Date: 5/23/2017

Contact Name: CARL BURNHAM

Project Name: CFAC SAMPLING - 17479

Comment:

Sample #: 170523003-001 **Customer Sample #:** 17479-WRC-001-G

Recv'd: ☑ **Matrix:** Solid **Collector:** DARIN DIETZ **Date Collected:** 5/22/2017
Quantity: 1 **Date Received:** 5/23/2017 9:45:00 AM **Time Collected:** 1:00 PM
Comment:

Test	Lab	Method	Due Date	Priority
%Moisture	S	%moisture	5/24/2017	***1 Day***
CYANIDE TOTAL EPA	S	EPA 335.4	5/24/2017	***1 Day***
FLUORIDE	S	EPA 300.0	5/24/2017	***1 Day***
Arsenic	S	EPA 6020A	5/24/2017	***1 Day***
Barium	S	EPA 6020A	5/24/2017	***1 Day***
Cadmium	S	EPA 6020A	5/24/2017	***1 Day***
Chromium	S	EPA 6020A	5/24/2017	***1 Day***
Lead	S	EPA 6020A	5/24/2017	***1 Day***
Mercury-ICPMS	S	EPA 6020A	5/24/2017	***1 Day***
Selenium	S	EPA 6020A	5/24/2017	***1 Day***
Silver	S	EPA 6020A	5/24/2017	***1 Day***
TOTAL 8	S	N/A	5/24/2017	***1 Day***

Sample #: 170523003-002 **Customer Sample #:** 17479-WRC-002-RW

Recv'd: ☑ **Matrix:** Solid **Collector:** DARIN DIETZ **Date Collected:** 5/22/2017
Quantity: 1 **Date Received:** 5/23/2017 9:45:00 AM **Time Collected:** 1:00 PM
Comment:

Test	Lab	Method	Due Date	Priority
%Moisture	S	%moisture	5/24/2017	***1 Day***
CYANIDE TOTAL EPA	S	EPA 335.4	5/24/2017	***1 Day***
FLUORIDE	S	EPA 300.0	5/24/2017	***1 Day***
Arsenic	S	EPA 6020A	5/24/2017	***1 Day***

Customer Name: IRS ENVIRONMENTAL
PO BOX 15216
SPOKANE WA 99215

Order ID: 170523003
Order Date: 5/23/2017

Contact Name: CARL BURNHAM

Project Name: CFAC SAMPLING - 17479

Comment:

Barium	S	EPA 6020A	5/24/2017	***1 Day***
Cadmium	S	EPA 6020A	5/24/2017	***1 Day***
Chromium	S	EPA 6020A	5/24/2017	***1 Day***
Lead	S	EPA 6020A	5/24/2017	***1 Day***
Mercury-ICPMS	S	EPA 6020A	5/24/2017	***1 Day***
Selenium	S	EPA 6020A	5/24/2017	***1 Day***
Silver	S	EPA 6020A	5/24/2017	***1 Day***
TOTAL 8	S	N/A	5/24/2017	***1 Day***

SAMPLE CONDITION RECORD

Samples received in a cooler?	Yes
Samples received intact?	Yes
What is the temperature of the sample(s)? (°C)	5.8/5.9
Samples received with a COC?	Yes
Samples received within holding time?	Yes
Are all sample bottles properly preserved?	Yes
Are VOC samples free of headspace?	N/A
Is there a trip blank to accompany VOC samples?	N/A
Labels and chain agree?	Yes

70523 003 IRSE Last Due 5/24/2017
st SAMP 5/22/2017 1st RCVD 5/23/2017
FAC SAMPLING - 17479

Anatek Labs, Inc.

Chain of Custody Record

1282 Alturas Drive, Moscow ID 83843 (208) 883-2839 FAX 882-9246
504 E Sprague Ste D, Spokane WA 99202 (509) 838-3999 FAX 838-4433

Company Name:	IRS Environmental	Project Manager:	Carl Burnham
Address:	12415 E Trent Ave	Project Name & #:	CFAC Sampling - 17479
City: Spokane Valley	State: WA Zip: 99217	Email Address:	Carl@irsenviro.com
Phone:	(509) 927-7867	Purchase Order #:	Darin@irsenviro.com
Fax:	(509) 928-3933	Sampler Name & phone:	Darin Dietz 509-998-8257

Please refer to our normal turn around times at:
http://www.anateklabs.com/services/guidelines/reporting.asp

__Normal __Next Day* ✓ 2nd Day* __Other* ASAP per Darin

*All rush order requests must be prior approved.

__Phone __Mail __Fax × Email

Provide Sample Description

West Rectifier Buiding
North Interior Wall

List Analyses Requested

Lab ID	Sample Identification	Sampling Date/Time	Matrix	Preservative	# of Containers	Sample Volume	EPA 6020/SW7471 RCRA 8 Metals	EPA 9012 Total Cyanide	EPA 300 Total Fluoride
	17479-WRC-001-G	05-22-2017 @ 13:00	Bulk		1	16 oz	×	×	×
	17479-WRC-002-RW	05-22-2017 @ 13:00	Bulk		1	16 oz	×	×	×

Note Special Instructions/Comments

RUSH
Temp Blank present

Inspection Checklist

Received Intact?	Y	N
Labels & Chains Agree?	Y	N
Containers Sealed?	Y	N
VOC Head Space?	Y	N

UPS c/i

Temperature (°C): 5.8/5.9 TB#1
Preservative: —
Date & Time: 5-23-17 0950
Inspected By: MG

	Printed Name	Signature	Company	Date	Time
Relinquished by	Darin Dietz		IRS Environmental	5.22.17	1439
Received by	Donna Rhins	Debbie O'Brien	Anatek	5-23-17	0845
Relinquished by					
Received by					
Relinquished by					
Received by					

Form COC01.00 - Eff 1 Mar 2015

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